

University of Groningen

[poster on] Are traits of ADHD associated with self-reported social cognition in an adult community sample?

Groen, Y.; Den Heijer, A.E.; Fuermaier, A.B.M.; Althaus, M.; Tucha, L.; Tucha, O.

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2016

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Groen, Y., Den Heijer, A. E., Fuermaier, A. B. M., Althaus, M., Tucha, L., & Tucha, O. (2016). *[poster on] Are traits of ADHD associated with self-reported social cognition in an adult community sample?*. Poster session presented at 16e Nationaal Autisme Congres, Rotterdam, Netherlands.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Are traits of ADHD associated with self-reported social cognition in an adult community sample?

^a Groen, Y., ^a Den Heijer, A.E., ^a Fuermaier, A.B.M., ^b Althaus, M., ^a Tucha, L., ^a Tucha, O.

^a Clinical and Developmental Neuropsychology, University of Groningen, Groningen, The Netherlands

^b Child and Adolescent Psychiatry, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands

E-mail: y.groen@rug.nl

Objective and methods

Adults with ADHD are often impaired in their social relationships and may show overlap with ASD symptoms, but studies on social cognition are lacking.

This study explores whether traits of ADHD in a community sample of adults are associated with self-reported social cognition.

Community sample (n = 685, 270 males, 415 females)

Mean age: 33 years (range 16-84 years)

Online survey: Dutch self-report questionnaires on traits of empathy (Empathy Quotient^{1,2}), systemizing (Systemizing Quotient^{1,2}) and ADHD (ADHD Rating Scale (ARS)³; adulthood and retrospective childhood version)

EQ: Cognitive empathy (CE)



EQ: Emotional empathy (EE)



EQ: Social skills (SS)



SQ: Systemizing



SQ - EQ: Brain type (D)



ARS: ADHD symptoms



Categorical approach

Selected participants with DSM-5 screening diagnosis of ADHD on ARS (adulthood: ≥ 5 clinical symptoms & childhood: ≥ 6 clinical symptoms) = "ADHD".

ANOVA ("ADHD"*sex) group comparison with matched controls from the community sample.

	"ADHD" (n=56) M(SD)	Controls (n=56) M(SD)	Main effect "ADHD"	Cohen's d
total EQ	26.7 (9.6)	30.9 (10.5)	p=.013*	-0.42
CE	11.0 (5.6)	12.3 (5.0)	p=.128	-0.26
EE	11.1 (4.7)	13.2 (5.2)	p=.006**	-0.42
SS	5.9 (2.8)	6.9 (2.5)	p=.073	-0.38
SQ	59.5 (20.0)	53.7 (17.4)	p=.066	0.31
D	0.074 (0.121)	0.017 (0.121)	p=.004**	0.47

No significant interactions of "ADHD"*sex were found.

Dimensional approach

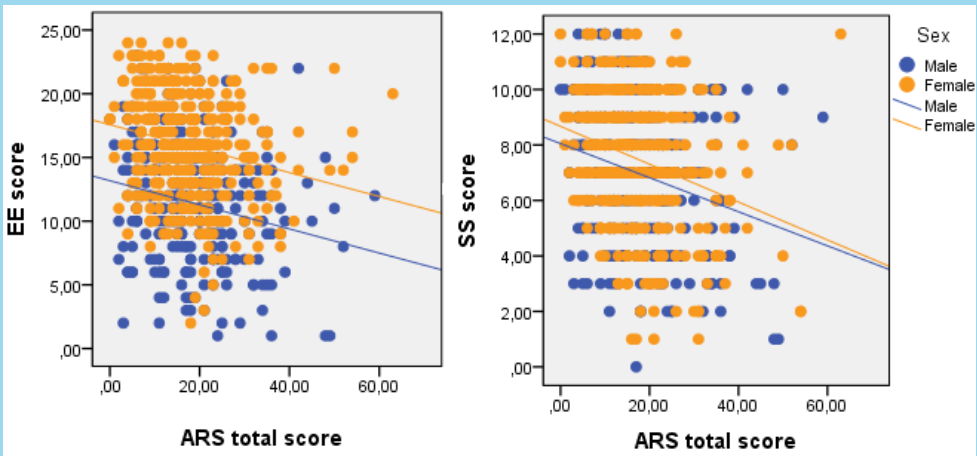
Whole-sample (n = 685) multiple linear regression analysis:
CE + EE + SS + SQ + D -> ARS (adulthood total score)?

Significant models:

Across sexes: SS + EE -> ARS ($R^2 = 0.085$; $p < .001$)

Males: SS -> ARS ($R^2 = 0.06$; $p < .001$)

Females: SS + EE -> ARS ($R^2 = 0.091$; $p < .001$)



Conclusions

Both approaches point to reduced emotional empathy in relation to traits of ADHD. Participants with a screening diagnosis of ADHD are characterized by a "male pattern" of self-reported social cognition, regardless of sex.

The social-cognitive profile of ADHD may therefore partly overlap with that of Autism Spectrum Disorder.

Future clinical ADHD studies should focus on possible **impairments** in empathy; sex differences should be taken into account.

References

- ¹Groen, Y., et al. (2015), JADD, 45:2848–2864.
- ²Wheelwright, S., et al. (2006). Brain Research, 1079(1), 47-56.
- ³Kooij, J. J. S., et al. (2005). Psychological Medicine, 35(6), 817-827.